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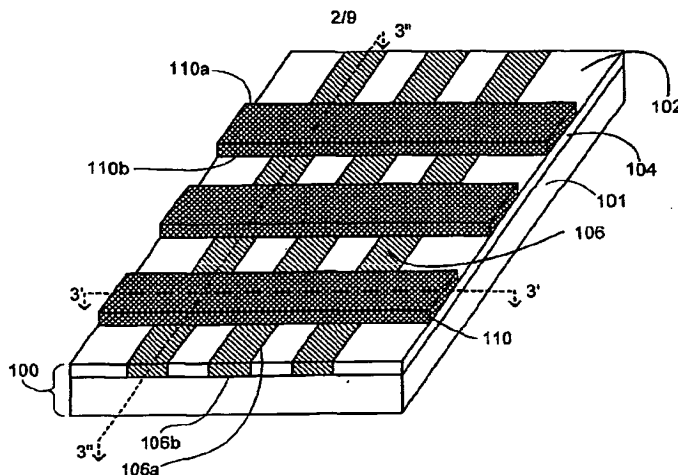
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(54) Title: **ADHESIVE ARTICLES WITH IMPROVED AIR EGRESS AND METHODS OF MAKING THE SAME**



(57) **Abstract:** Methods of making adhesive articles providing air egress by supplying a route for the air to flow out from under the construction are described. One method includes providing a release liner comprising a moldable layer having a release surface and a back surface; applying a first pattern of a first non-adhesive material to a first portion of the release surface; applying a second pattern of a second non-adhesive material to a second portion of the release surface, wherein the second pattern partially overlaps the first pattern; embedding at least one of the first or second non-adhesive materials into the moldable layer; and transferring an adhesive layer having a front and back surface and end edges onto the release liner, wherein the front surface of the adhesive layer is adhered to the release surface of the release liner.

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# INTERNATIONAL SEARCH REPORT

International application No  
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A CLASSIFICATION OF SUBJECT MATTER  
C09J7/02 C09J7/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
C09J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical search terms used)

EPO-Internal , PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document with indication, where appropriate, of the relevant passages	Relevant to claim No
X	WO 01/81080 A (AVERY DENNISON CORPORATION) 1 November 2001 (2001-11-01)  abstract paragraphs [0005] - [0007], [0015] - [0017], [0028] - [0031], [0033], [0034], [0036], [0039] - [0041], [0046] - [0054]; claims; figures -----	1-21, 45-51, 55-57
X	EP 1 310 538 A (PLAST CORPORATION; INAGAKI, HIROMICHI) 14 May 2003 (2003-05-14) abstract paragraphs [0009] - [0011], [0014], [0015]; claims; figures ----- -/--	55-57

☒ Further documents are listed in the continuation of Box C

☒ See patent family annex

### \* Special categories of cited documents

- 'A' document defining the general state of the art which is not considered to be of particular relevance
- 'E' earlier document but published on or after the International filing date
- 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- 'O' document referring to an oral disclosure, use, exhibition or other means
- 'P' document published prior to the international filing date but later than the priority date claimed

- 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- 'X' document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- 'Y' document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- 'G' document member of the same patent family

Date of the actual completion of the International search

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# INTERNATIONAL SEARCH REPORT

International application No  
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
P,X	WO 2005/075592 A (LUDWIG, PETER) 18 August 2005 (2005-08-18) abstract pages 2,4-6; claim 10 -----	1-60
X	WO 90/07560 A (MINNESOTA MINING AND MANUFACTURING COMPANY) 12 July 1990 (1990-07-12) abstract page 3, line 14 - page 4, line 20 page 5, lines 9-15 page 6, line 1 - page 9, line 38; claims 1,4,6,7; figure 4 -----	1-60
A	US 5 591 290 A (WALTER ET AL) 7 January 1997 (1997-01-07) column 5, line 58 - column 6, line 16 -----	1-60

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2005/029544

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) (or the following reasons

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additi onal sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees

FURTHER INFORMATION CONTINUED FROM POT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-21,45-51,55-57

a) An adhesive article comprising: b) a release liner comprising a release surface, a molding layer and a second surface; c) a continuous layer of adhesive having a first surface, a second surface and end edges, wherein the first surface of the adhesive is adhered to the release surface of the release liner; d) a first pattern of first non-adhesive material forms having a first surface and a second surface; and e) a second pattern of second non-adhesive material forms having a first surface and a second surface; f) wherein the second pattern partially overlaps the first pattern; g) at least one of the first and second patterns is at least partially embedded in the release surface and molding layer of the release liner; h) the first surface of each of the two patterns is in contact with the release surface of the release liner; the second surface of each of the two patterns is in contact with the adhesive layer; i) and the first surface of at least a portion of the first pattern of non-adhesive material forms is in a plane that is different from the plane of the first surface of at least a portion of the second pattern of non-adhesive material forms.

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2. claims: 22-44,52-54,58-60

a) An adhesive article comprising: b) a release liner comprising a release surface, a molding layer and a second surface; c) a continuous layer of adhesive having a first surface, a second surface and end edges, wherein the first surface of the adhesive is adhered to the release surface of the release liner; d) a first embossed pattern in the release surface and the molding layer and e) a second pattern of non-adhesive material forms ; f) wherein the second pattern partially overlaps the embossed first pattern; g) and a portion of the second pattern at least partially fills in portions of the first embossed pattern, h) said embossed pattern and the non-adhesive material forms having an exposed first surface and a second surface, i) wherein the exposed first surface at least a portion of the embossed pattern is in a plane that is different from the plane of the exposed first surface of at least a portion of the non-adhesive material forms.

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# INTERNATIONAL SEARCH REPORT

information on patent family members

International application No

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